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QUESTIONED DOCUMENTS PROCEDURES MANUAL	Effective Date: 29-March-2006

8 INDENTED WRITING EXAMINATIONS

8.1 Objective

To locate and decipher indented entries (e.g. writing) on paper

8.2 References

- Conway, James V.P.; Evidential Documents; Charles C. Thomas Publisher, 1959
- Ellen, David; The Scientific Examination of Documents (Second Edition); Taylor & Francis Ltd., 1997
- Hilton, Ordway; Scientific Examination of Questioned Documents (Revised Edition); Elsevier, 1982
- Saferstein, Richard; Criminalistics, An Introduction to Forensic Science; Prentice-Hall Inc., 1977
- Foster & Freeman Ltd.; <u>Instruction Manual for the Electrostatic Detection Apparatus (ESDA)</u>

8.3 Equipment

- ESDA
- light source of appropriate design to be used for oblique lighting
- magnifier
- stereo microscope
- transmitted light box

8.4 Safety Measures & Other Concerns

Precautionary measures due to the high voltage of the ESDA are contained in the Manufacturer's Operating Instructions Manual

Note: Although considered a non-destructive process, the use of the ESDA can sometimes result in partial removal of pencil writing and typescript from the surface of documents being processed. Although the effect is generally minimal, reproductions (e.g. photograph, photocopy, scan) of such documents should be prepared prior to ESDA processing.

8.5 Procedures

- 8.5.1 These procedures may not address all aspects of any uncommon or unusual circumstances encountered during examinations.
- 8.5.2 The procedures outlined below may not be possible or necessary in each and every case.
- 8.5.3 Examine the paper from all angles using side lighting. Use magnifiers or microscope if needed. Dimming any overhead lighting may be helpful. If significant indented writing impressions are found and are sufficiently legible, consider having them photographed (or reproduced by other similar means).
- 8.5.4 Process the paper on the ESDA. Prepare ESDA lifts as necessary to determine the presence of any indentations, or to recover any significant indented entries which are immediately apparent.

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Note: In order to insure the ESDA is functioning properly a 'test' shall be performed according to the following.

- 8.5.4.1 Use a small strip of paper (approximately 1" x 8").
- 8.5.4.2 Fold it over so that it measures approximately 1"x 4".
- 8.5.4.3 Using ballpoint pen, write "ESDA TEST" (or similar verbiage) on the outside of the folded strip.
- 8.5.4.4 Unfold the test strip and place it (blank side up) on the vacuum bed with the actual evidence, and process both simultaneously. (Note: If you humidify the actual evidence, make sure you humidify the test strip as well. Also, if the evidence size does not permit simultaneous processing, the test strip should be performed first.)
- 8.5.4.5 Development of a visible image from the indented writing on the test strip assures that the apparatus is functioning satisfactorily and shall be considered a "Positive" test result. Test results shall be documented in the examiner's case file notes as either "Positive" or "Negative" (Note: standard abbreviations such as Pos, +, Neg, may be used). A positive test result must be obtained before an ESDA result can be used as the basis for any conclusion contained in a CoA. An initially negative test strip result can often be corrected by simply recharging the developer or by increasing the moisture (humidity) levels.
- 8.5.4.6 When processing multiple documents during the same ESDA session a single test strip will suffice.
- 8.5.4.7 Neither the test strip, nor any portion of the indented test image recovered from it need be retained.
- 8.5.5 ESDA lifts need only be prepared when indentations are located. ESDA processing which produces blank pages, or images of obvious insignificance (e.g. markings from the evidence container, signatures from evidence chains) need not be preserved, but should be documented in the examiner's case file notes. Any indentation which is not clearly insignificant should be considered significant.
- 8.5.6 In those instances where significant indentations are located, the ESDA lift(s) used in recovering those indentations shall be handled in accordance with the following.
 - 8.5.6.1 Each ESDA lift shall be designated a sub item (per section 13.3.3 of the Department Quality Manual) and marked for identification with the DFS case number, item number, and the examiner's initials.
 - 8.5.6.2 ESDA lifts shall be returned to the contributor with the evidence, placed in the original evidence container when possible. When this is not practical, a sealed container (per sections 20.6.2 and 20.6.3 of the Department Quality Manual) containing the ESDA lift(s) shall be marked with the DFS case number and the examiner's initials and attached to the source Item evidence container.
 - 8.5.6.3 A reproduction of the ESDA lift(s) (e.g. photograph, photocopy, scan) shall be placed in the case file in lieu of the actual lift(s). The CoA shall be annotated to reflect that ESDA lift(s) have been included with the returned evidence, and that the integrity of the lift(s) should be protected in the same manner as the source Item(s) of evidence.

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